

# List of All Chemicals

## **P** Cinchona officinalis (Rubiaceae)

Common name(s)

Lojabark; Quinine

How used

Medicinal

\*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Plant Part	Low PPM	High PPM	StdDev	*Reference
3-ALPHA,17-BETA-CINCHOPHYLLINE	Leaf	--	--		*
<b>Activities (3)</b>					
Amebicide IC50=3.50 ug/ml					Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.
Cytotoxic IC50=0.4 ug/ml					Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.
Pesticide					
3-BETA,17-BETA-CINCHOPHYLLINE	Leaf	--	--		*
<b>Activities (3)</b>					
Amebicide IC50=1.62 ug/ml					Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.
Cytotoxic IC50=2.24 ug/ml					Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.
Pesticide					
AVICULARIN	Leaf	--	--		*
<b>Activities (7)</b>					
Aldose-Reductase-Inhibitor IC32=1 uM					Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888.
Aldose-Reductase-Inhibitor IC84=10 uM					Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888.
Antibiotic					CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Cyclooxygenase-Activator 100 uM					Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Diuretic					CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Pesticide					
Tissue-Thromboplastin-Inhibitor IC50=54.8 uM					
CINCHONIDINE	Bark	--	--		*
<b>Activities (6)</b>					
Antiflu					
Antiherpetic					
Antimalarial 150-500 mg/man/4 x day					
Antipyretic					=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Antiviral					
Pesticide					
CINCHONINE	Bark	--	--		*
<b>Activities (7)</b>					
Antiaggregant IC50=125-180 uM					
Antimalarial LD50=152 (ipr rat)	Merck 11th Edition				
Antipyretic					=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
MDR-Inhibitor 250 mg/kg igs rat					Genne, P., Duchamp, O., Solary, E., Magnette, J., Belon, J. P., Chauffert, B. 1995. Cinchonine Per OS: Efficient Circumvention of P-Glycoprotein-Mediated Multidrug Resistance. <i>Anticancer Drug Design</i> , 10(2): 103-118.
MDR-Inhibitor 5 uM					

IC50=125-180 uM

Pesticide

HYDROQUINIDINE      Bark      --      --      Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

**Activities (3)**

Antiarrhythmic 450-600 mg/man/day      Martindale's 29th  
 Antimalarial      Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.  
 Pesticide

QUINIDINE      Bark      --      --      \*

**Activities (23)**

Abortifacient  
 Allergenic  
 Amebicide IC50=16.6 ug/ml      Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.  
 Analgesic      Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.  
 Antiarrhythmic 72 mg/kg ipr mus  
 Antiarrhythmic ED50=60 uM/kg      Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.  
 Anticholinergic      Martindale's 28th  
 Antihiccup  
 Antimalarial 10 mg/kg/or/man/8 hrs      Martindale's 29th  
 Antipyretic      =ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp.;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp  
 Antitachycardic  
 Antitumor      Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.  
 Cardiodepressant      Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.  
 Dermatitogenic  
 Emetic  
 Hemolytic      Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.  
 Hypotensive      Martindale's 29th  
 Immunosuppressant      Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.  
 Laxative      Martindale's 29th  
 MDR-Inhibitor 100 uM      Critchfield, J. W., Welsh, C. J., Phang, J. M., Yeh, G. C. 1994. Modulation of Adriamycin Accumulation and Efflux by Flavonoids in HCT-15 Colon Cells. Activation of P-Glycoprotein as a Putative Mechanism. Biochem Pharmacol, 48(7): 1437-1445.  
 MDR-Inhibitor IC50=1-12 uM  
 Myorelaxant      Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.  
 Oxytotic

QUININE      Bark      --      --      \*

**Activities (32)**

Abortifacient  
 Allergenic  
 Amebicide IC50=14.8 ug/ml  
 Analgesic      Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.  
 Anesthetic      Wealth of India.  
 Antibacterial  
 Antidysenteric  
 Antifeedant  
 Antifibrillary      Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.  
 Antihemorrhoidal      Wealth of India.  
 Antilumbagic      Wealth of India.  
 Antimalarial IC50=0.18 ug/ml      Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.  
 Antineuralgic      Wealth of India.  
 Antineuritic      Wealth of India.  
 Antipyretic      Merck 11th Edition  
 Antisciatic      Wealth of India.  
 Antitrypanosomic  
 Antiyeast

